REMARKS

Claims 1, 3, 5 and 6 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by UK Patent Application No. 2 252 515 to Zwaan. Applicant submits that Zwaan does not anticipate the claims and cannot be modified to render obvious the claims. Reconsideration and withdrawal of the rejection is again requested.

Applicant thanks the Examiner for the courtesy of the interviews on April 17, 2008 and May 27, 2008.

During the interview on April 17, 2008, Applicant's attorney, Linda Palomar, on behalf of the Applicant and the Examiner discussed claims 1 and 3 and GB 2 252 515 to Zwaan. Specifically:

- The water compartment 30 formed of microporous sheet 40 of Zwaan is not an *enclosing outer wall* defining a flexible gases passageway between said inlet and said outlet as defined in claim 1. Applicant submitted that the water compartment 30 is an internal wall, and is not an outer enclosing wall under the definition of "enclose" as defined in the *Oxford English* dictionary (defines "enclose" as "surround or close off on all sides").

The water compartment 30 only encloses the heater element and the water that is supplied thereto. The water compartment 30 does not act as a gases passageway.

Applicant agreed that the water compartment has an inlet and pores which form outlets, however, these are not the same as the claimed inlet and outlet. Applicant advised the Examiner that Applicant was not arguing that the water compartment did not have an inlet and outlet.

- Zwaan does not disclose that the plastic material is flexible. Applicant agreed that plastic in a general sense can be flexible or rigid and that Applicant was not arguing that plastic cannot be flexible; Applicant was arguing that Zwaan does not disclose that its material is flexible.

Applicant argued that the drawings of Zwaan clearly show that the hollow body 1 is rigid and, at best, semi-rigid. The Examiner contended that Applicant cannot look to the drawings for support with regard to thicknesses of the material to show that the hollow body is not flexible; there must be some written disclosure in Zwaan which would indicate that the material cannot be flexible. Applicant argued that the actual product sample of Zwaan clearly shows that the material is rigid. The Examiner said that he only relies upon what is disclosed in Zwaan and that Zwaan discloses that the body 1 is made of plastic, which can be flexible.

The Examiner admitted that Zwaan does not specify that the plastic is flexible, but argued that Zwaan does not require the plastic to be rigid. The Examiner advised that he used the broadest reasonable interpretation of the material properties of plastic, i.e. flexible or rigid, to reject the claim. The Examiner contended that this is acceptable to show each and every limitation of the claim to satisfy a rejection under 35 U.S.C.§102(b). The Examiner advised that if Zwaan had stated that the body cannot be flexible, then he would not have been able to rely upon it.

- With regard to claim 3, the heater wire in Zwaan is supported within the water compartment 30 does not lie freely in the conduit such that it can settle over at least some of its length at low points in the conduit where condensed water vapour may collect. The

Examiner advised that the heater wire in Zwaan can settle within the water compartment and can settle over at least some of its length at low points in the water compartment.

During the interview on May 28, 2008, Applicant's attorney, Linda Palomar, on behalf of the Applicant and the Examiner discussed claim 1. Specifically:

- The Examiner now contended that the inner element member 10 forms the enclosing outer wall and because of gases flow aperture 26, the inner element member 10 is of a material that allows the passage of water vapour without allowing the passage of liquid water or respiratory gases therethrough. Applicant advised the Examiner that they were surprised by this assertion as it has not been presented in any of the Office Actions. We advised the Examiner that gases flow aperture 26 is an absence of material, not a material that allows the passage of water vapour therethrough, but prevents the passage of liquid water or respiratory gases therethrough.

Because there appears to have been a number of contrary rejections raised, Applicant will address each in turn as best understood from reading the Office Action and from the interviews with the Examiner.

According to the Office Action, the Examiner states that the claimed inlet is inlet 2 and the claimed outlet is outlet 3. Applicant agrees with the Examiner that inlet 2 is the inlet to the conduit and that outlet 3 is the outlet to the conduit. The Examiner then states that Zwaan teaches an enclosing outer wall as defined by the claim and references page 5, lines 18-25. Page 5, lines 18-25 of Zwaan states the following:

> The water compartment 30 is constructed from microporous sheet material 40 having sealed edges 41, 42 and 43. The microporous material 40 is substantially

permeable to water vapour but substantially impermeable to liquid water and is made from, for example, expanded PTFE (Polytetrafluoroethylene). Such sheet material is manufactured under the trade mark GOR-TEX and is available from W.L. Gore & Associates, Inc.Newark, Del.,U.S.A. in

Therefore, from the Office Action, it was Applicant's understanding that the Examiner contended that the claimed enclosing outer wall was the water compartment 30, since this is the only enclosing wall in Zwaan which includes a region of breathable material is the envelope made from GORE-TEX® material.

As argued in the last Amendment, this is a water compartment and is therefore not a **gases** passageway as claimed. The water compartment has water, which is a liquid - not a gas, and does not have gases fed through the inlet.

Further, the water compartment of Zwaan does not include an inlet and an outlet ***as claimed***. Applicant does not contend, and has **never** contended, that the water compartment 30 does not contain an inlet and does not contain an outlet. Clearly, the water compartment 30 contains an inlet 45 through which the water flows to supply the water compartment 30 and contains micro-holes which are outlets in the microporous sheet 40. Instead, Applicant has contended that, when viewing the meaning of inlet and outlet in the context of the present specification, it is clearly understood that inlet and outlet as specified in the claim are an inlet and outlet in the ordinary sense of the words: an inlet at the beginning of the gases passageway and an outlet at the end of the gases passageway, with the gases passageway defined therebetween. Applicant has amended claim 1 to clearly specify the ordinary meaning of inlet and outlet when viewed in the context of the specification to ensure that there are no further misunderstandings.

The inlet 2 of the conduit is not the inlet 45 of the water compartment 30; the outlet 3 of the conduit is not the micro-holes of the water compartment 30. Applicant does not understand why the Examiner has brought up the inlet 45 of the water compartment 30 and the micro-holes of the water compartment 30; they are not relevant to the claims.

The only inlet of Zwaan that can possibly be interpreted to cover the claimed inlet is inlet 2. The only outlet of Zwaan that can possibly be interpreted to cover the claimed outlet is outlet 3. When viewed in this context, the water compartment 30 does not form part of the enclosing outer wall. The *Oxford English* dictionary defines "enclose" as "surround or close off on all sides". As clearly shown in FIG. 7, the gases are free to flow completely around the water compartment 30, except where the water compartment 30 is supported within the inner element member 10.

With regard to the Examiner's assertion in the interview of May 27, 2008 that the inner element member 10 of Zwaan forms the enclosing outer wall and because of gases flow aperture 26, the inner element member 10 is of a material that allows the passage of water vapour without allowing the passage of liquid water or respiratory gases therethrough, Applicant submits that this does not read on claim 1 and is also factually incorrect. The inner element member 10 is formed of plastic, like the rest of the casing 4/5. The plastic disclosed in Zwaan does not allow the passage of water vapour without allowing the passage of liquid water or respiratory gases as specified in claim 1; the plastic material of Zwaan prevents the passage of water vapour, liquid water and respiratory gases therethrough. The aperture 26 also does not passage of water vapour without allowing the passage of liquid water or respiratory gases; instead, the aperture 26 allows

the passage of water vapour, liquid water and respiratory gases. Therefore, inner element member 10 cannot be said to be the enclosing outer wall.

With regard to the Examiner's comment that Applicant states that the plastic cannot be defined as flexible, this is also incorrect. Applicant admits that plastic can be flexible, but does not admit that Zwaan discloses that its material is flexible.

Applicant respectfully disagrees with the Examiner that "... hollow body 1 is made of plastic and palstic [sic] is flexible..." implying that therefore Zwaan discloses a flexible gases passageway as claimed. The property of "flexibility" is not defined solely by material choice as the Examiner insists. If this were true, then aluminum foil (of the type commonly used in baking) would be rigid because it is made of metal. Clearly, this is fundamentally flawed reasoning because aluminum foil is far from rigid.

Similarly, an ordinary 'highlighter' pen is constructed from cheap and thin plastic material, but cannot be bent by hand. It is not flexible, despite being made from low modulus plastic and having thin walls. Importantly, a highlighter pen has a similar size and shape as the breathing tube of the present invention, so it follows that the 'property' of 'flexibility' must dictated by more than merely material choice as the Examiner alleges. Applicant submits that being made of plastic is not the same as being flexible. More complicated issues such as bending and buckling are involved.

Indeed, the material property (i.e. it is made of plastic) the Examiner relies on, is at best only half the story, and the position taken by the Examiner is factually incorrect. An object's flexibility (called 'flexural stiffness' or 'flexural rigidity' in engineering beam bending theory) is dictated by two factors. In simple terms, the important factors are: what the object is made of,

and the shape of the object. In more precise terms, the factors are: material property (Youngs modulus) *and* geometry (specifically the second moment of area).

Importantly, the second moment of area (for a round bar) is related to the diameter to the 4th power ($I=pi*D^4/64$). As a result, the geometry of an object is arguably far more important to flexibility than the material from which it is made. A publication from the Internet is enclosed, which provides a simple summary of engineering bending theory (see 3rd and 4th paragraphs under the heading Introduction).

Nowhere in Zwaan does it suggest that the "hollow casing" is flexible.

The apparatus disclosed in Zwaan is required to support the envelope made from GORE-TEX® material and the heater, to accept electrical and water connections at locations along its length, and to accept connection to flexible breathing conduits at the inlet and outlet. A person of ordinary skill in the art would immediately recognize that a degree of rigidity is required to facilitate these connections. Further, as the Examiner notes, the fins 35, 14 and 15 of Zwaan are described as providing structural support and rigidity to the assembled apparatus (Col. 2, lines 65-68). The Zwaan apparatus is clearly not flexible. There is nothing in Zwaan to suggest that the apparatus described is flexible, and s a result the claims of the present application are not anticipated by Zwaan.

Further, as previously argued, the object of the present invention is to reduce condensation build-up by allowing water vapour to escape through the outer wall of the conduit. The object and function of the present invention is one of dehydration. In contrast, Zwaan describes a humidifier. These functions are opposite, and as a result a person skilled in the art

could not be taught nor motivated to adapt Zwaan and arrive at the claimed invention. Applicant therefore submits that the claimed invention is not obvious in view fo Zwaan.

Finally, the teaching of Zwaan and the present application are so disparate, that a person of ordinary skill in the art could not adapt Zwaan and arrive at the present invention without considerable inventive step.

Therefore, Applicants submit that Zwaan does not anticipate claim 1 and cannot be modified to render obvious claim 1. Reconsideration and withdrawal of the rejection is requested. Allowance of claim 1 is requested.

Claims 3, 5 and 6 are dependent upon claim 1, which Applicants submit is in condition for allowance. Therefore, Applicants submit that claims 3, 5 and 6 are allowable. Reconsideration and allowance is requested.

With further regard to claim 3, which requires that the heater wire "lies freely" to "settle over at least some low points", Zwaan clearly discloses a water compartment (and heater inside) supported within the casing so that the heater does not "lie freely" or "settle" (Col. 2, line 38-44). This allow the heater wire in the present invention to settle at low points in the conduit where condensed water vapour may collect so that the collected condensed water vapour can be re-evaporated by the heater wire. Zwaan clearly does not allow the heater to lie freely and cannot perform this function. Accordingly, Applicant submits that claim 3 is novel over Zwaan. Reconsideration and allowance is requested.

A Petition for a Two-Month Extension of Time is concurrently submitted herewith to extend the date for response up to and including May 28, 2008.

Applicants acknowledge with appreciation the indicated allowance of claims 2, 4 and 7-10 if rewritten in independent form, including all of the limitations of the base claim and any intervening claims.

In view of the above Remarks, Applicants respectfully submit that the claims of the application are allowable over the rejections of the Examiner. Should the Examiner have any questions regarding this Amendment, the Examiner is invited to contact one of the undersigned attorneys at (312) 704-1890.

Respectfully submitted,

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